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American Fern Journal

Vol. 4

JANUARY-APRIL, 1914

No. 1

Braun's Holly Fern

BY STEWART H. BURNHAM.

The following records of this beautiful fern are in part gathered from printed notes which are not available to the majority of fern students. My first pressed specimen of *Polystichum Braunii* (Spenner) Fée for my herbarium was secured from Rev. Jas. A. Bates, collected at Baintree, Vt., September, 1895. Mr. J. C. Buchheister, of New York City, afterwards sent me specimens which he collected 30 July 1899, in a wild stony, but at same time, moist woods on Belle Ayr Mt., Ulster county, in the Catskill mountains at an altitude of 2500 to 3000 feet.

It was not until the fall of 1902, that I was aware that it grew near the shores of Lake George. One evening while calling at the home of Prof. J. F. Kemp, of Columbia University, who had been doing field work in geology during the summer in the vicinity of Silver Bay, Prof. Kemp laid out on the floor a magnificent complete pressed specimen with fronds two feet long, which he had collected on the talus in the Ice George north-west of Silver Bay at an altitude of about 1500 feet. This fine specimen is preserved in my herbarium. Prof. Kemp said the fern was not common in this cool ravine, where ice may be obtained from beneath the rocks until late in the summer.

I first saw and collected the plant at the twelfth annual field meeting of the Vermont Botanical Club on

[No. 4 of the JOURNAL (4: 96-124, was issued Dec. 30, 1913.)

Mt. Mansfield. It was pointed out to me near the wagon road, the 4th of July 1906, during the ascent of the mountain in a rain-storm; and was said to be the only locality near the road outside of Smugglers Notch. The following day I collected a few plants near the spring in Smugglers Notch; and dug up three or four plants to transplant in my wild garden; these plants lived for about five years but finally succumbed to the effects of too strong light and droughts. It was said not to be as abundant here as formerly; before a vandal florist dug up and carried off barrels of fern roots to sell. This is said to be the type station for this fern in America, being found here by Frederick Pursh in 1807. It grew in rich shaded soil; but plants were seen along the base of the upper cliffs and also in rock crevices. In my herbarium there is a specimen from this locality, Stowe, Vt., August 1864—collector unknown.

The 14th of June 1907, in company with Frank Dobbin, of Shushan, N. Y., we climbed Mt. Equinox, near Manchester, Vt. Descending the mountain westward through Corbett's Hollow on the Sandgate side, we found three plants of Braun's Holly Fern near the lower end of the ravine. Previous to this but one specimen of this fern had been recorded as growing on the mountain, collected at the ninth annual field meeting of the Vermont Botanical Club, 4th of July 1903, as the party were descending the steep eastern slope of the mountain to Manchester.*

The 10th of October 1909, I saw one fine plant of this fern on Mt. Greylock, Mass., low down in the "Inner Hopper" along the stream. Previous to this Ralph Hoffmann, in August 1904, found several plants of *Aspidium aculeatum* Swartz., var. *Braunii* Koch

* *Rhodora* 5: 236. Sept. 1903.

along "the mountain brook which comes down the north side of Greylock"* The 29th of May 1910, I found a few scattering plants of the fern along the stream in the "Heart of the Greylock," low down, not far from the old Goodale house. I believe Mt. Greylock still remains the only station for this fine fern in Massachusetts.

Mrs. Elizabeth Watrous of New York City discovered this beautiful fern, about 15th of June 1904, near her summer home at Hague, Lake George, in a wild rocky ravine called Hosie Gulch, where it grows in company with large plants of Goldie's Fern, *Dryopteris Goldiana* (Hook.) A. Gray. This information she communicated to Dr. Chas. H. Peck, State Botanist. The 16th of July 1907, Mrs. Watrous presented two or three fine specimens to the New York State Herbarium at Albany. The altitude of this cool ravine is about 1000 feet; or 700 feet above the Lake. Prof. Kemp's station is not many miles distant from Hosie Gulch, and on the same mountain range.

Two other sheets are preserved in the State Herbarium at Albany. A large specimen from the Catskills collected by Chas. H. Peck; also a sheet of small plants from the Catskills collected by Peck.

I believe the first printed record of this fern occurring in New York State is in Dr. John Torrey's N. Y. State Flora.† It is called *Aspidium aculeatum* Swartz. Prickly Shield Fern. "Mountains of Essex county (Dr. W. F. Macrae)." Dr. Torrey says, "I was not so fortunate to find this interesting fern when I explored the Essex mountains; neither was it detected by Dr. Knieskern, in his subsequent visit to that region. My specimens are from the Green Mountains of Vermont.

*Rhodora 6: 203. Oct. 1904.

† Flora of the State of New York 2: 298. 1843.

(where the plant was first found in America, by Pursh), and the White Mountains of New Hampshire; the former kindly communicated by Dr. W. F. Macrae, the latter by Mr. Tuckerman; both presenting an exact resemblance to the European *A. aculeatum*."

During the year 1869, Dr. Chas. H. Peck collected this fern in the Catskills.* "*Aspidium aculeatum* v. *Braunii* Koch. Stony Clove, Catskill mountains. Discovered there by J. H. Redfield. This locality is evidently very favorable to the growth of ferns. In July last, the following nineteen species were observed while passing along the road, about the distance of half a mile, and in no case going more than four rods from it:

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|---------------------------------------|--|
| <i>Polypodium vulgare</i> L. | <i>Aspidium spinulosum</i> Swartz. |
| <i>Adiantum pedatum</i> L. | <i>A. marginale</i> Swartz. |
| <i>Pteris aquilina</i> L. | <i>A. acrostichoides</i> Swartz. |
| <i>Asplenium thelypteroides</i> Mx. | <i>A. aculeatum</i> Swartz. |
| <i>A. filix-foemina</i> Bernh. | <i>Struthiopteris germanica</i> Willd. |
| <i>Phegopteris polypodioides</i> Fee. | <i>Onoclea sensibilis</i> L. |
| <i>P. dryopteris</i> Fee. | <i>Woodsia ilvensis</i> R. Br. |
| <i>Cystopteris bulbifera</i> Bernh. | <i>Dicksonia punctilobula</i> Kze. |
| <i>C. fragilis</i> Bernh. | <i>Botrychium virginicum</i> Swartz. |
| <i>Aspidium thelypteris</i> Swartz. | |

"The whole number of species now known to belong to the State is forty-four, excluding the doubtful inhabitant *Lygodium palmatum*. It will thus be seen that nearly half our species occur in the Stony Clove." Not many years afterwards, Miss M. C. Reynolds discovered the rare Climbing Fern in Greene county.†

Dr. Peck, in his Remarks and Observations on New York State plants, speaking of his fern, says:

"*Aspidium aculeatum* Swartz. This very rare fern was reported from the Adirondack Mts., many years

* N. Y. State Mus. Rept. 24: 101. 1872.

† N. Y. State Mus. Rept 28: 84. 1876.

ago by Dr. W. F. Macrae, but until the present season, had not since been found there. In a recent botanical tour I detected it in two localities; one in the ravine below Rainbow Falls, near the outlet of Lower Ausable Lake, the other at the base of Bartlett Mt. Probably it occurs in other places east of Mt. Marcy and in the ravines of the Gothics.”*

“*Aspidium aculeatum* var. *Braunii* Koch. Abundant in the ‘Deep Notch’ between Shandaken and Lexington. Eighteen species of ferns were observed in this locality, all except three of which had previously been noticed in ‘Stony Clove,’ a locality similar to this and but a few miles south of it. The three species are *Wood-sia obtusa*, *Asplenium Trichomanes* and *Osmunda cinnamomea*. These two localities together produce one-half the whole number of ferns that occur in the State.”†

“*Aspidium aculeatum* Sw., v. *Braunii* Koch. This beautiful fern proves to be more common than was at first supposed. I have observed it in three new localities the past season. Near Summit, Schoharie county; near Griffins, Delaware county; and in the Catskill Mountains, near Big Indian.”‡

Prof. B. D. Gilbert in his “Fern Flora of New York” speaks of a specimen of this fern from “Ilion ravine, Rev. H. N. Simmons in herb. Gilbert.”**

Mrs. Frances Theodora Parsons in “How to Know the Ferns” says that this fern has been found in Oswego county, N. Y.

HUDSON FALLS, N. Y.

* N. Y. State Mus. Rept. 25: 107-108. 1873.

† N. Y. State Mus. Rept. 26: 89. 1874.

‡ N. Y. State Mus. Rept. 31: 53. 1879.

** Fern Bulletin 11: 102. Oct. 1903.